

IN THE UNITED STATES

PATENT AND TRADEMARK OFFICE

APPLICANT: Eric C. Anderson
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FILING DATE: HERewith
TITLE: APPARATUS AND METHOD FOR ROTATING THE DISPLAY ORIENTATION OF
A CAPTURED IMAGE
EXAMINER: UNASSIGNED
GROUP ART UNIT: UNASSIGNED
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PRELIMINARY AMENDMENT AND
STATUS OF CLAIMS AND SUPPORT FOR CLAIM CHANGES
UNDER 37 CFR § 1.173(c)

Sir:

Prior to examination of the subject reissue patent application, please amend the patent as indicated below:

IN THE CLAIMS

Add claims 36-46, as indicated below:

36. An apparatus for rotating a display orientation of captured image data representative of an object, the apparatus comprising:
an image sensor, for generating said captured image data;
an input device, for generating an orientation signal in response to a user selection;
a memory, having an auto-rotate unit comprising program instructions for selectively transforming said captured image data into rotated image data in response to said orientation signal from said input device; and

an image processing unit coupled to said memory for executing the program instructions stored in said memory;
wherein (a) said image sensor generates at least one more row and column of pixels then the image processing unit processes or (b) an image capture unit generates at least one additional row and column of pixels for said captured image data from said image sensor.

37. A digital image capture device, comprising:

an image sensor, for generating image data;
an orientation sensor, for automatically sensing the orientation of the image sensor relative to a reference orientation and generating an orientation signal indicating the orientation of the image sensor relative to the reference orientation; and
an auto-rotate unit coupled to the image sensor and the orientation sensor, for automatically rotating the image data in response to the orientation signal.

38. The digital image capture device of claim 37, further comprising:

an image processing unit coupled to the auto-rotate unit, for processing a subset of the rotated image data.

39. The digital image capture device of claim 37, further comprising:

an image capture unit coupled to the image sensor, for adding m additional rows and n additional columns to an i-by-j array of image data to form an i+m-by-j+n array of image data to be rotated by the auto-rotate unit in response to the orientation signal.

40. A method of rotating image data in a digital image capture device, comprising:

capturing image data from an image sensor;
automatically sensing the orientation of the image sensor relative to a reference orientation;

providing an orientation signal indicating the orientation of the image sensor relative to the reference orientation; and
automatically rotating the captured image data in response to the orientation signal.

41. The method of claim 40, wherein the rotating step further comprises:
automatically rotating a subset of captured image data in response to the orientation signal.

42. The method of claim 40, further comprising:
adding m additional rows and n additional columns to an i-by-j array of the image data to form an i+m-by-j+n array of image data to be rotated by the auto-rotate unit in response to the orientation signal.

43. A computer-readable medium having stored thereon instructions which, when executed by a processor, cause the processor to perform the steps of:
capturing image data from an image sensor;
automatically sensing the orientation of the image sensor relative to a reference orientation;
providing an orientation signal indicating the orientation of the image sensor relative to the reference orientation; and
automatically rotating the captured image data in response to the orientation signal.

44. The computer-readable medium of claim 43, wherein the rotating step further comprises:
automatically rotating a subset of captured image data in response to the orientation signal.

45. The computer-readable medium of claim 43, further comprising:
adding m additional rows and n additional columns to an i-by-j array of the image
data to form an i+m-by-j+n array of image data to be rotated by the auto-rotate
unit in response to the orientation signal.

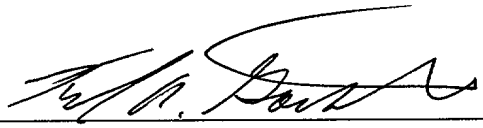
46. A digital image capture device, comprising:
means for generating image data;
means for automatically sensing the orientation of the image sensor relative to a
reference orientation;
means for generating an orientation signal indicating the orientation of the image
sensor relative to the reference orientation; and
means for automatically rotating the image data in response to the orientation signal.

STATUS OF CLAIMS AND SUPPORT FOR CLAIM CHANGES

Original claims 1-35 are in the patent as issued and new claims 36-46 are pending.
Support for new claims 36-46 can be found in the specification of the issued patent at
cols. 3-13 *et seq.*

Respectfully submitted,
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